

IN THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application:

Claims 1-17. (cancelled)

18. A micromechanical device comprising a substrate, a movable member overlying the substrate, first and second microactuators carried by the substrate and a coupling assembly for connecting the first and second microactuators to the movable member, the first microactuator moving the movable member in a first substantially linear direction and the second microactuator moving the movable member in a second substantially linear direction substantially perpendicular to the first direction, the coupling assembly including at least one counterbalance for inhibiting undesirable movement of the movable member in the first and second directions in response to externally applied accelerations to the device.

19. A device as in Claim 18 wherein the coupling assembly includes a first linkage coupled to the first microactuator and a second linkage coupled the second microactuator, the first linkage having a first counterbalance for inhibiting undesirable movement of the movable member in the first direction in response to externally applied accelerations to the device and the second linkage having a second counterbalance for inhibiting undesirable movement of the movable member in the second direction in response to externally applied accelerations to the device.

20. A device as in Claim 19 wherein the first linkage is provided with a first lever assembly having a first lever member coupled to a first pivot assembly, the first lever member having first and second end portions, the second end portion being coupled to the movable member and first linking means for coupling the first end portion to the first microactuator.

21. (currently amended) A device as in Claim 20 wherein the first linking means has an additional first pivot assembly coupled to the first microactuator and an additional first lever member coupled to the additional first pivot assembly.

22. A device as in Claim 21 wherein the first linking means has a first flexural member for coupling the additional first lever member to the first end portion of the first lever member.

23. A device as in Claim 20 wherein the second linkage is provided with a second lever assembly having a second lever member coupled to a second pivot assembly, the second lever member having first and second end portions, the second end portion being coupled to the movable member and second linking means for coupling the first end portion to the second microactuator.

24. A device as in Claim 23 wherein the second linking means has an additional second pivot assembly coupled to the second microactuator and an additional second lever member coupled to the additional second pivot assembly.

25. A device as in Claim 24 wherein the second linking means has a second flexural member for coupling the additional second lever member to the first end portion of the second lever member.

26. A device as in Claim 23 wherein the first pivot assembly is coupled between the first lever member and the substrate.

27. A device as in Claim 26 wherein the second pivot assembly is coupled between the second lever member and the first lever member.

28. A micromechanical device comprising a substrate, a movable member overlying the substrate, a first microactuator carried by the substrate and coupled to the movable member for moving the movable member in a first substantially linear direction and a second microactuator carried by the substrate and coupled to the movable member for moving the movable member in a second substantially linear direction substantially perpendicular to the first direction, the movable member and the first microactuator being balanced in the first direction for inhibiting undesirable movement of the movable member in the first direction in response to externally applied accelerations to the device and the movable member and the second microactuator being balanced in the second direction for inhibiting undesirable movement of the movable member in the second direction in response to externally applied accelerations to the device.

29. A device as in Claim 27 wherein each of the first and second microactuators is an electrically-driven microactuator.

30. A device as in Claim 28 wherein each of the first and second microactuators is an electrostatic microactuator.

31. A device as in Claim 29 wherein each of the first and second microactuators has a first comb drive member mounted on the substrate and a second comb drive member overlying the substrate and movable relative to the first comb drive member.

32. A micromechanical device comprising a substrate, a movable member overlying the substrate, actuator means carried by the substrate and coupled to the movable member for moving the movable member in first and second substantially perpendicular directions and balancing means carried by the substrate and coupled to the actuator means for inhibiting motion of the movable member in response to externally applied accelerations in such directions.

33. A device as in Claim 33 wherein the actuator means includes first and second microactuators.